Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 - 8. (Canceled)

9. (Currently Amended) A ~~The~~ microscopy system ~~according to claim 8,~~ for visualizing a fluorescence of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light detecting component of a first camera for generating first image data representing images of the object region with light including wavelengths of a first wavelength range comprising a fluorescent emission wavelength of the fluorescent substance, and

a second beam path for providing a magnified first representation of the object region, wherein the first representation represents images of the object regions with light including wavelengths of a second wavelength range comprising at least visible light;

an image memory for storing a set of first image data detected by the first camera during at least a time duration; and

a display system configured to sequentially display plural second representations generated from at least a subseries of the set of first image data such that the plural second representations are displayed in superposition with the first representation for observation by a user, wherein the display system is configured for repeatedly displaying the series of plural second representations in superposition with the first representation.

10. (Currently Amended) A ~~The~~ microscopy system ~~according to claim 8, further comprising~~ for visualizing a fluorescence of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light detecting component of a first camera for generating first image data representing images of the object region with light including wavelengths of a first wavelength range comprising a fluorescent emission wavelength of the fluorescent substance, and

a second beam path for providing a magnified first representation of the object region, wherein the first representation represents images of the object regions with light including wavelengths of a second wavelength range comprising at least visible light;

an image memory for storing a set of first image data detected by the first camera during at least a time duration;

a display system configured to sequentially display plural second representations generated from at least a subseries of the set of first image data such that the plural second representations are displayed in superposition with the first representation for observation by a user; and

a controller configured to select the subseries ~~subset~~ of the set of first image data from the set of first image data based on intensities of the plural images represented by the first image data.

11. (Currently Amended) A ~~The~~ microscopy system ~~according to claim 8, further comprising~~ for visualizing a fluorescence of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light detecting component of a first camera for generating first image data representing images of the object region with light including wavelengths of a first wavelength

range comprising a fluorescent emission wavelength of the fluorescent substance, and

a second beam path for providing a magnified first representation of the object region, wherein the first representation represents images of the object regions with light including wavelengths of a second wavelength range comprising at least visible light;

an image memory for storing a set of first image data detected by the first camera during at least a time duration;

a display system configured to sequentially display plural second representations generated from at least a subseries of the set of first image data such that the plural second representations are displayed in superposition with the first representation for observation by a user; and

a controller configured for selecting the subseries ~~subset~~ from the set of first image data based on differences between ~~of~~ intensities of the images represented by the first image data of the first set.

12 - 29. (Canceled)

30. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

31. (Previously Presented) The microscopy system according to claim 30, wherein the display system is further configured to superimpose the plural second representations with the second beam path directed to the ocular.

32. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and

wherein the display system is further configured to display a representation of the second image data.

33, 34. Canceled

35. (Currently Amended) A microscopy method of visualizing a fluorescence of an object to be inspected, the method comprising:

displaying a magnified first representation of the object for observation by a user, wherein the fluorescence of the object is substantially not visible in the first representation;

recording a series of plural fluorescent light images of the object during a time ~~duration~~ period; and

displaying the recorded series of plural fluorescent light images of the object after the time period has lapsed such that the series of plural fluorescent light images is visible for the user and superimposed with the magnified first representation of the object.

36 - 39. Canceled

40. (Currently Amended) A method of treating an aneurysm of a patient, the method comprising:

clipping an aneurysm sac of the aneurysm using a clip;

injecting indocyanine green into the patient;

generating at least one fluorescence image of at least one artery adjacent to the clipped aneurysm;

generating a visible light image of an object region;

assessing vascular blood flow of the at least one artery based on the at least one fluorescence image; ~~and~~

assessing whether the indocyanine green accumulates in the aneurysm sac based on the at

least one fluorescence image; and

assessing a complete blocking of the aneurysm sac with the clip if the indocyanine green does not accumulate in the aneurysm sac ~~based on the at least one fluorescence image~~.

41. (Previously Presented) The method of claim 35, further comprising:

illuminating the object with light including wavelengths higher than a predetermined wavelength while recording the series of fluorescent light images; and

terminating the illuminating of the object with the light of the wavelengths higher than the predetermined wavelength, based on an analysis of the recorded fluorescent light images, and illuminating the object with light only including wavelengths smaller than the predetermined wavelength.

42. (Previously Presented) The microscopy method of claim 41, wherein a fluorescent substance is applied to the object when the object is illuminated with the light of the wavelengths higher than the predetermined wavelength.

43. (Currently Amended) The microscopy system of claim 9 [[8]], wherein the fluorescent substance comprises indocyanine green.

44. (Currently Amended) The microscopy system of claim 9 [[8]], further comprising:

an illumination system for providing at least one illuminating light beam directed onto the object region, wherein the at least one illuminating light beam includes light with wavelengths of the second wavelength range and an excitation wavelength of the fluorescent substance.

45. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the light of the at least one illuminating light beam is emitted from one single light source.

46. (Previously Presented) The microscopy system according to claim 45, wherein the light source comprises one of a xenon lamp and a halogen lamp.

47. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the illuminating system comprises a first filter disposed in a beam path of the illuminating system, wherein the first filter substantially eliminates light with a fluorescent emission wavelength of indocyanine green from the illuminating light beam.

48. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 710 nm.

49. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 690 nm.

50. (Previously Presented) The microscopy system according to claim 49, wherein at least one of the first and second filters comprises a transmissive filter or a reflective filter.

51. (Currently Amended) The microscopy system according to claim 9 [[8]], wherein the illumination system comprises

a first filter which is positionable at a first position in which the first filter is disposed within a beam path of the illumination system, wherein the first filter eliminates

light with wavelengths higher than a predetermined wavelength from the illuminating light beam, and

an actuator for displacing the first filter from a second position in which the first filter is not positioned within the beam path to the first position; and

a controller configured for controlling the actuator for displacing the first filter from its second position to its first position based on an analysis of intensities of images represented by the set of first image data.

52. (Previously Presented) The microscopy system according to claim 51, wherein the predetermined wavelength is in a range of one of 690 nm to 720 nm, 720 nm to 750 nm, 750 nm to 780 nm, and 780 nm to 800 nm.

53. (New) The microscopy system according to claim 10, wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

54. (New) The microscopy system according to claim 53, wherein the display system is further configured to superimpose the plural second representations with the second beam path directed to the ocular.

55. (New) The microscopy system according to claim 10, wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and wherein the display system is further configured to display a representation of the second image data.

56. (New) The microscopy system of claim 10, wherein the fluorescent substance comprises indocyanine green.

57. (New) The microscopy system of claim 10, further comprising:

an illumination system for providing at least one illuminating light beam directed onto the object region, wherein the at least one illuminating light beam includes light with wavelengths of the second wavelength range and an excitation wavelength of the fluorescent substance.

58. (New) The microscopy system according to claim 10, wherein the light of the at least one illuminating light beam is emitted from one single light source.

59. (New) The microscopy system according to claim 58, wherein the light source comprises one of a xenon lamp and a halogen lamp.

60. (New) The microscopy system according to claim 10, wherein the illuminating system comprises a first filter disposed in a beam path of the illuminating system, wherein the first filter substantially eliminates light with a fluorescent emission wavelength of indocyanine green from the illuminating light beam.

61. (New) The microscopy system according to claim 10, wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 710 nm.

62. (New) The microscopy system according to claim 10, wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 690 nm.

63. (New) The microscopy system according to claim 62, wherein at least one of the first and second filters comprises a transmissive filter or a reflective filter.

64. The microscopy system according to claim 10, wherein the illumination system comprises

a first filter which is positionable at a first position in which the first filter is disposed within a beam path of the illumination system, wherein the first filter eliminates light with wavelengths higher than a predetermined wavelength from the illuminating light beam, and wherein the illuminating system comprises an actuator for displacing the first filter from a second position in which the first filter is not positioned within the beam path to the first position; and

a controller configured for controlling the actuator for displacing the first filter from its second position to its first position based on an analysis of intensities of images represented by the set of first image data.

65. The microscopy system according to claim 64, wherein the predetermined wavelength is in a range of one of 690 nm to 720 nm, 720 nm to 750 nm, 750 nm to 780 nm, and 780 nm to 800 nm.

66. The microscopy system according to claim 11, wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

67. The microscopy system according to claim 66, wherein the display system is further configured to superimpose the plural second representations with the second beam path directed to the ocular.

68. The microscopy system according to claim 11, wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and wherein the display system is further configured to display a representation of the second image data.

69. The microscopy system of claim 11, wherein the fluorescent substance comprises indocyanine green.

70. The microscopy system of claim 11, further comprising:

an illumination system for providing at least one illuminating light beam directed onto the object region, wherein theat least one illuminating light beam includes light with wavelengths of the second wavelength range and an excitation wavelength of the fluorescent substance.

71. The microscopy system according to claim 11, wherein the light of the at least one illuminating light beam is emitted from one single light source.

72. The microscopy system according to claim 71, wherein the light source comprises one of a xenon lamp and a halogen lamp.

73. The microscopy system according to claim 11, wherein the illuminating system comprises a first filter disposed in a beam path of the illuminating system, wherein the first filter substantially eliminates light with a fluorescent emission wavelength of indocyanine green from the illuminating light beam.

74. The microscopy system according to claim 11, wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 710 nm.

75. The microscopy system according to claim 11, wherein the illumination system comprises a second filter disposable in a beam path of the illuminating system, wherein the second filter substantially eliminates light from the illuminating light beam having a wavelength higher than 690 nm.

76. The microscopy system according to claim 75, wherein at least one of the first and second filters comprises a transmissive filter or a reflective filter.

77. The microscopy system according to claim 11, wherein the illumination system comprises

a first filter which is positionable at a first position in which the first filter is disposed within a beam path of the illumination system, wherein the first filter eliminates light with wavelengths higher than a predetermined wavelength from the illuminating light beam, and wherein the illuminating system comprises an actuator for displacing the first filter from a second position in which the first filter is not positioned within the beam path to the first position; and

a controller configured for controlling the actuator for displacing the first filter from its second position to its first position based on an analysis of intensities of images represented by the set of first image data.

78. The microscopy system according to claim 77, wherein the predetermined wavelength is in a range of one of 690 nm to 720 nm, 720 nm to 750 nm, 750 nm to 780 nm, and 780 nm to 800 nm.

79. The method of claim 35, wherein the displaying the recorded series of plural fluorescent light images of the object, comprises the repeatedly displaying the recorded series of plural fluorescent light images.